

NOVEMBER/DECEMBER 2023

**CMB11/FMB11 — FUNDAMENTALS OF
MICROBIOLOGY**

Time : Three hours

Maximum : 75 marks



SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Who discovered streptomycin?
2. Define Microbiology.
3. What is condenser?
4. Define lake.
5. Who introduced binomial system of naming species?
6. Define incipient nucleus.
7. What are fimbriae?
8. Define chemotaxis.
9. Expand HEPA filters.
10. Define disinfectant.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write about the contributions of Louis Pasteur to Microbiology.

Or

- (b) Describe Koch's postulates.

12. (a) Give an account on phase contrast microscope and its functioning.

Or

- (b) Explain the metachromatic staining technique.

13. (a) Differentiate between prokaryote and Eukaryote.

Or

- (b) Give briefly outline the classification of plant viruses.

14. (a) Describe the structure of flagella with a neat diagram.

Or

- (b) Explain the mechanism of endospore formation with diagram.

15. (a) Give an account on heat sterilization methods.

Or

- (b) Explain about types of filters used for sterilization.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write in detail about the spontaneous generation of life.

17. Describe the Gram staining technique.

18. Write an essay on Wittaker's five kingdom concept.

19. Draw and explain the gram positive and gram negative cell wall of bacteria.

20. Discuss in detail the mechanism of action of antimicrobial drugs.

